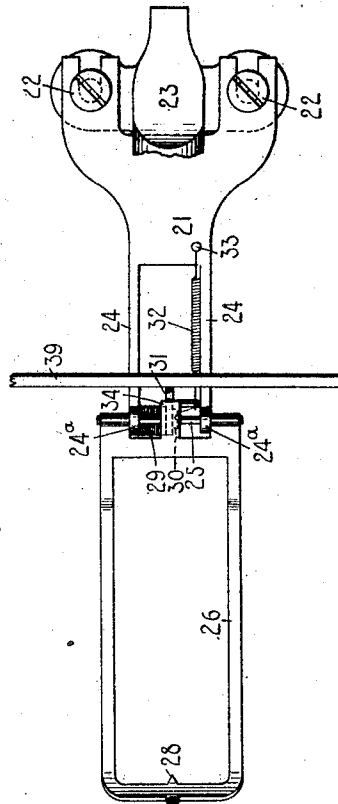
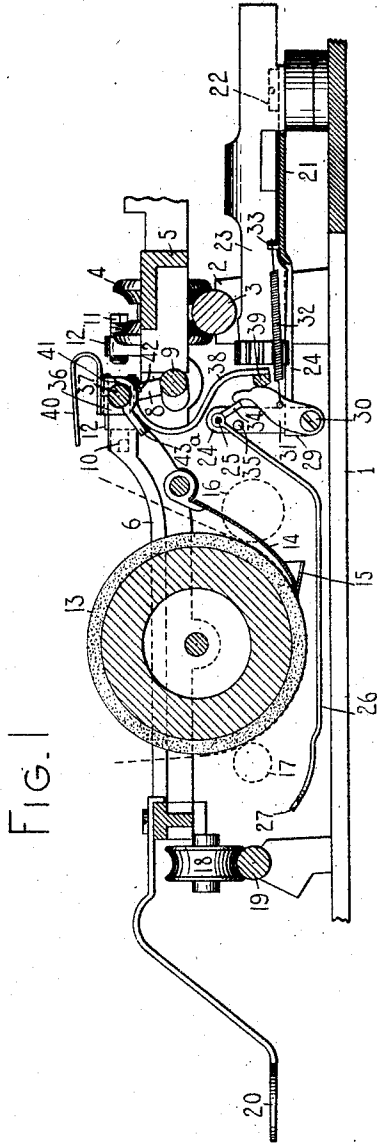


W. J. BARRON.
TYPE WRITING MACHINE.
APPLICATION FILED MAR. 6, 1905.

965,061.

Patented July 19, 1910.

3 SHEETS—SHEET 1.



WITNESSES.

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965,061.

Patented July 19, 1910

3 SHEETS—SHEET 2.

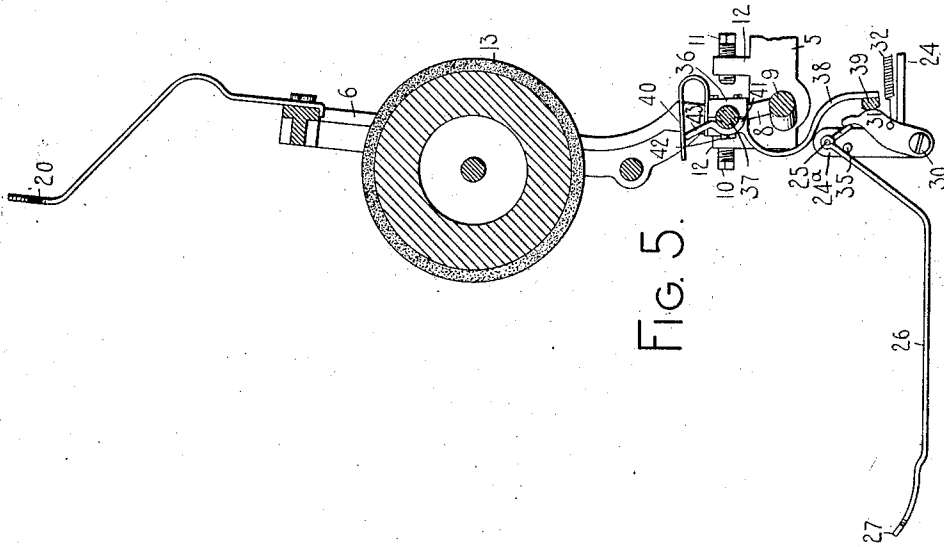


FIG. 5.

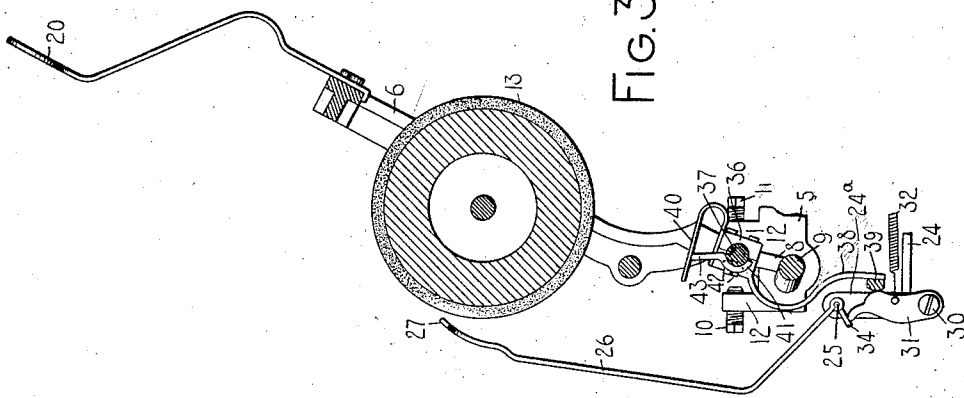


FIG. 3.

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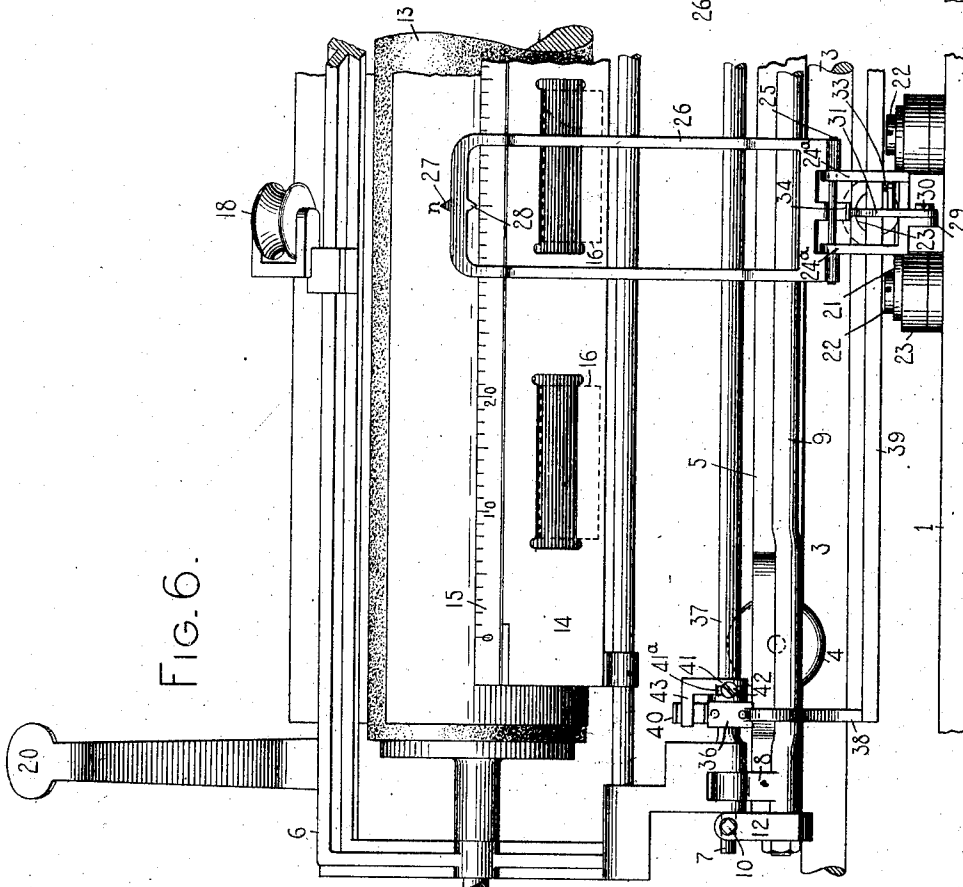
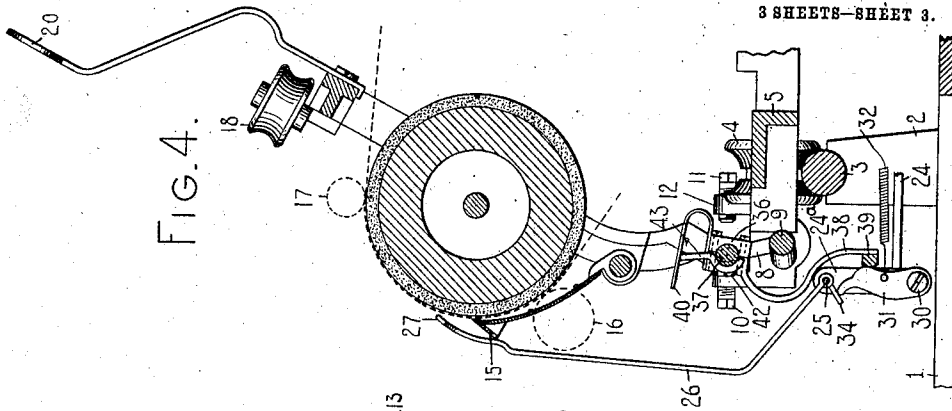
HIS ATTORNEY

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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

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TYPE-WRITING MACHINE.

965,061.

Specification of Letters Patent.

Patented July 19, 1910.

Application filed March 6, 1905. Serial No. 248,570.

To all whom it may concern:

Be it known that I, WALTER J. BARRON, citizen of the United States, and resident of the borough of Brooklyn, city of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a specification.

My invention relates to typewriting machines and more particularly to indicating mechanism therefor and by which an indicator may be automatically moved to the indicating position and may be permitted to move away from the indicating position when desired, without disconnecting the parts, and while the platen remains in the swung-back position to expose the writing.

To the above and other ends, which will hereinafter appear, my invention consists in the features of construction, arrangements of parts and combination of devices to be hereinafter described and claimed.

In the accompanying drawings, wherein like reference characters indicate corresponding parts in the various views, Figure 1 is a fragmentary vertical sectional view through the upper portion of a bottom-strike typewriting machine showing one form of construction embodying my invention. Fig. 2 is a fragmentary plan view showing the indicator and a portion of the actuating means therefor. Fig. 3 is a view corresponding in part to Fig. 1 except that the platen is shown swung back and with the printing point indicator in the indicating position, the platen being swung back from the lower case position. Fig. 4 is a like view of the same showing the platen swung back from the upper case position. Fig. 5 is a view corresponding to Fig. 4, except that the indicator is shown lowered to the normal position by a slight forward movement of the platen frame. Fig. 6 is a fragmentary front elevation, showing the platen swung back to expose the writing and the printing point indicator in the indicating position.

I have illustrated my invention in the present instance applied to a No. 6 Remington machine, though it should be understood that the invention may be applied to various other forms of machines and that the construction may be changed accordingly.

The top plate 1 of the machine supports the usual lugs or risers 2 for a transverse

rod 3 with which traction rollers 4 cooperate to support and guide the carriage truck 5. A platen frame 6 is pivoted, by pivot pins 7, to links or arms 8 that project from a rod or rock shaft 9 pivoted at its ends in the carriage truck 5. Screw stops 10 and 11 extend in opposite directions through lugs 12 carried by the truck and cooperate with the pivot pins 7 to limit the fore and aft movement of the platen frame when it is shifted to shift the platen from one case position to another. The platen frame carries a platen 13 and the usual paper apron 14, platen scale 15 and feed rollers 16 and 17. The forward end of the platen frame carries a roller 18 that cooperates with a shift rail 19 and by which the platen is shifted for upper and lower case writing and a handle 20 is provided to swing the platen frame back on its pivots.

A bracket plate 21 may be secured in place in the rear of the platen by two screws 22 which are usually employed in the No. 6 Remington machine to secure the bearing 23 for the shaft of the carriage feed pinion in place. This bracket plate is cut out to receive the feed pinion and bearing 23 and is bifurcated at its forward end, and the arms 24 of the bifurcated portion are provided with upwardly extending arms 24^a having bearings for a pivot pin 25 of a printing point indicator 26, that in the present instance has parallel sides and ends with a central opening therein through which the types strike, and the outer end of the indicator has a pointer 27 projecting outwardly therefrom to register with the printing point and a pointer 28 projecting inwardly therefrom to register with the indices on the platen scale 15, all as will hereinafter more clearly appear. The printing point indicator is therefore pivoted in the rear of the platen and in its normal position extends beneath the platen in substantially a horizontal plane. A bearing piece 29 extends inwardly from one of the arms 24 to receive a headed screw 30 that constitutes a pivot for a pivoted device or lever 31 that has a contractile spring 32 connected thereto at one end, the other end of said spring being connected to a pin 33 projecting from the bracket plate, so that the spring tends to keep the device in the normal position illustrated in Fig. 1. The pivoted device 31 contacts with a finger 34

that is integral with and projects rearwardly from the indicator 26 which is supported in its lowermost, or normal position, by a pin 35 projecting inwardly from one of the arms 24^a.

A detachable two-part collar 36 is mounted to turn freely on a rod 37 of the platen frame near each end thereof and each collar carries a depending arm 38, the arms being connected at their lower ends by a cross-bar 39 that extends substantially throughout the length of the platen and corresponds in length substantially to the run of the carriage. The upper side of each collar 36 is preferably flattened for the attachment of one end or arm of a substantially U-shaped leaf spring or friction device 40, so that the cross bar, bail or so-called actuator 39, arms 38 thereof, the sleeves 36 and springs or friction devices 40 are all connected and are adapted to swing together around the bar 37 of the platen frame as a pivot. A segmental or half round supporting piece 41 is secured by a screw 42 next to each of the collars 36, each piece 41 being slotted at 41^a for the reception of the stem of its screw 42 and extending from each of the supporting pieces 41 is an outwardly projecting rigid finger or friction device 43 that extends to a position where it will be brought into cooperation with the cooperating friction device 40 on the actuator when the platen frame is swung back as indicated in Figs. 3, 4 and 6. The screws 42 not only hold the friction devices 41—43 in place but afford an adjustment thereof around the rod 37 so as to regulate the engagement of the friction device with the cooperating devices 40. In the operation of the device the platen frame may be swung back from any point in the travel of the carriage and the friction devices 43 which are fixed to and turn with the platen frame will not be brought into contact with the cooperating friction devices 40 on the actuator until the last portion of the swinging movement of the platen, and during the first portion of the swinging movement of the platen the indicator will remain at rest in its normal substantially horizontally disposed position beneath the platen, and the platen frame may, if desired, be turned back to inspect the writing without actuating the indicator. When friction devices 43 are brought into contact with the springs 40 a frictional engagement between the two sets of devices will be established and the bail, bar or actuator 39 will be swung forward, thus vibrating the lever or device 31 against the tension of its spring and the lever 31 cooperating with the finger 34 will cause the indicator to be automatically moved from the substantially horizontal position to the upright substantially vertical indicating position illustrated

in Figs. 3, 4 and 6, whether the platen be swung from the upper case position, with pivot pins 7 in contact with the stops 10, as illustrated in Fig. 4, or from the lower case position with the pivot pins in contact with the stops 11, as indicated in Fig. 3. After the friction devices 40 and 43 are brought into cooperative relation and the printing point indicator has been automatically moved to the indicating position, there may be a continued movement of the devices 43 with the platen frame without effecting undue pressure on the indicator, there being merely a relative movement effected between the devices 43 and their cooperating devices 40. The slightest return movement of the platen will, however, suffice to restore the indicator to the normal position while the platen frame is still maintained in an upright position, as indicated, for instance, by a movement of the platen frame from the position shown in Fig. 3 to that indicated in Fig. 5. Thus the indicator may be readily restored to the normal position beneath the platen where it stands away from the platen to enable an erasure to be readily made without interference from the indicator, and while the platen is maintained in the swung back position with the writing exposed and where an erasure can be made without difficulty. Furthermore, the indicator can be restored to the normal position without effecting a disconnection between the platen frame and the indicator so that, if desired, the indicator may immediately be brought to the indicating position by a slight backward tilt of the platen frame.

From the foregoing description it will be understood that the connections between the indicator and the platen frame constitute differential means or connections whereby the slight forward movement of the platen frame from either of the positions shown in Figs. 3 or 4 to that indicated in Fig. 5 is sufficient to return the indicator to the normal position while the platen still remains in the swung back position where the writing can be easily inspected and erasures may be made.

From an inspection of Fig. 4 it will be observed that when the indicator is in the indicating position the pointer 27 does not contact with the paper and that the indicator itself rests against the platen scale 15 and that during the swinging movement of the platen the pointer will not be brought into contact with the platen or the paper thereon.

In certain kinds of printing point indicators heretofore devised, and more particularly those which employ springs to automatically move the indicator to the indicating position when the platen is swung back to expose the writing, considerable difficulty has been encountered by reason of the pointer at times engaging the paper

guides or paper feed rollers at the front of the platen during the swinging of the platen to the normal position and at times interfering with the feed of the carriage by bearing thereon and by coming into contact with the paper feeding devices during the travel of the carriage. Then again considerable difficulty has been experienced by the indicator contacting with the printed matter and blurring the imprint on the paper and by the sharp end of the pointer engaging the paper and mutilating it. By the present invention these and other difficulties heretofore encountered in printing point indicators are obviated since the indicator remains in the normal position beneath the platen until the platen frame has almost completed its backward swing and is restored to the normal position at the first portion of the forward swing of the platen frame and when the indicator is in the indicating position it is prevented from coming into contact with the paper by contacting with the platen scale.

While I have described one form of construction embodying my invention, it should be understood that various modifications may be made without departing from the spirit of my invention.

What I claim as new and desire to secure by Letters Patent, is—

1. In a typewriting machine, the combination of a platen, a swinging platen frame carrying said platen, an indicator normally extending beneath the platen in substantially a horizontal plane, and connecting means between said platen frame and indicator for placing the indicator under control of the platen frame in the swinging movements thereof, said connecting means including means by which the connecting means are constantly maintained in coöperative relation with the platen frame and indicator when the indicator is in the normal or non-indicating position and the platen frame is maintained swung back to expose the writing, whereby the indicator may be moved to the normal position or to the indicating position while the platen frame is maintained in the swung back position and without breaking the operative connection between the platen frame and indicator.

2. In a typewriting machine, the combination of a swinging platen that is adapted to be shifted for upper and lower case writing, a printing point indicator pivoted in the rear of the platen, and means for operatively connecting said indicator to the platen to be automatically moved to the indicating position when the platen is swung back irrespective of whether the platen is in the upper or lower case position, said connecting means including means by which the connecting means are constantly main-

tained in coöperative relation with the platen frame and indicator when the indicator is in the normal or non-indicating position and the platen frame is maintained swung back to expose the writing, and affording a movement of the indicator to the normal or non-indicating position while the platen is maintained in the swung-back position to expose the writing and without releasing the operative connection between the platen and indicator.

3. In a typewriting machine, the combination of a platen frame adapted to be swung up and down, a platen in said frame, a printing point indicator below said frame in its normal, down position, a pivotally mounted actuator for said printing point indicator, said actuator carrying a friction member, and a second friction member connected to swing up and down with the platen carrier; whereby the indicator is raised to the printing point at the last part of the turning movement of the platen carrier, and whereby said indicator may be released to drop to normal position while the platen is in up-turned position and by a slight rocking movement of said platen carrier.

4. In a typewriting machine, the combination of a swinging platen, an indicator normally extending beneath the platen in substantially a horizontal plane, and differential operative connections between the platen and indicator having lost motion such that the platen may be swung back to expose the writing before the indicator is moved to the indicating position and the differential connections being such that the indicator may be returned from the indicating to the normal or non-indicating position by a slight movement of the platen in the swung-back position.

5. In a typewriting machine, the combination of a platen, a swinging platen frame therefor, an indicator, an actuator for the indicator, a friction device connected with said actuator, and a coöperating friction device carried by the platen frame.

6. In a typewriting machine, the combination of a platen, a swinging platen frame therefor, an indicator, an actuator for the indicator, said actuator being fixed during the first part of the backward movement of the platen frame, a friction device connected with said actuator, and a coöperating friction device carried by the platen frame and adapted to effect an operation of the actuator at the last portion of the backward swinging movement of the platen frame.

7. In a typewriting machine, the combination of a platen, a swinging carriage therefor, an indicator pivoted to a fixed portion of the machine, and a coöperating actuator carried by the carriage, a friction device connected with the actuator, and a co-

operating friction device carried by the carriage to effect a movement of the indicator to and from the indicating position.

8. In a typewriting machine, the combination of a platen, a swinging carriage therefor, an indicator pivoted to a fixed portion of the machine, a freely movable swinging bail pivoted to the carriage and adapted to cooperate operatively with the indicator at any point in the travel of the carriage, a friction device connected to said bail and a cooperating friction device carried by the carriage and adapted to effect a movement of the bail to bring about an automatic actuation of the indicator from and to the normal position.

9. In a typewriting machine, the combination of a platen, a swinging carriage therefor, an indicator pivoted to a fixed portion of the machine, a freely movable swinging bail pivoted to the carriage, a spring-pressed pivoted device that is moved in one direction by the bail and cooperates with the indicator to move it to the indicating position, a friction device connected to said bail, and a cooperating friction device carried by the carriage and adapted to effect a movement of the bail to bring about an automatic actuation of the indicator from and to the normal position.

10. In a typewriting machine, the combination of a swinging platen, an indicator operatively connected by frictional means to be moved by the swinging movement of the platen, the construction affording a movement of the indicator to the normal or non-indicating position when the platen is swung back to expose the writing and without releasing the operative frictional connection between the platen and indicator.

11. In a typewriting machine, the combination of a platen, a swinging platen frame carrying said platen, an indicator operatively connected by frictional means to be moved by the swinging movement of the platen frame, the frictional means being constantly maintained when the platen is in a swung back position and the construction affording a movement of the indicator to the normal or non-indicating position while the platen frame is swung back to expose the writing and without releasing the operative frictional connection between the platen frame and indicator.

12. In a typewriting machine, the combination of a swinging platen that is adapted to be shifted for upper and lower case writing, a printing indicator that is connected by frictional means to automatically move to the indicating position when the platen is swung back, irrespective of whether the platen is in the upper or lower case position, and means for affording a movement of the indicator to the normal or non-indicating position while the platen is maintained in the

swung-back position to expose the writing and without releasing the frictional connection.

13. In a typewriting machine, the combination of a swinging platen, an indicator, and operative connections including friction devices between said platen and indicator by which the indicator is not moved until the last part of the swinging back movement of the platen, when it is automatically moved to the indicating position.

14. In a typewriting machine, the combination of a swinging platen, an indicator, and operative connections including normally disconnected friction devices between said platen and indicator, said friction devices being constantly maintained connected when the platen is in the swung-back position and by which the indicator is not moved until the last part of the swinging back movement of the platen, when it is automatically moved to the indicating position, and which affords an automatic return movement of the indicator to the normal or non-indicating position at the first portion of the return movement of the platen from the swung-back position.

15. In a typewriting machine, the combination of a swinging platen, an indicator, and differential operative connections including friction devices between the platen and indicator, whereby the platen may be swung back to expose the writing before the indicator is moved.

16. In a typewriting machine, the combination of a swinging platen, an indicator, and differential operative connections including friction devices between the platen and indicator, said friction devices being normally disconnected but constantly maintained connected when the platen is in a swung back position, whereby the platen may be swung back to expose the writing before the indicator is moved to the indicating position and the indicator may be returned from the indicating to the normal or non-indicating position by a slight movement of the platen in the swung-back position.

17. In a typewriting machine, the combination of a swinging platen, an indicator, and an actuator for the indicator, friction devices, said actuator being controlled through said friction devices by the swinging movement of the platen and free from co-action therewith during the first part of the swinging movement of the platen from the normal or operative position.

18. In a typewriting machine, the combination of a platen, a swinging carriage therefor, an indicator pivoted to a fixed portion of the machine, and a cooperating actuator carried by the carriage, friction devices between said actuator and the swinging carriage, the construction and arrangement being such that the actuator is adapted to

remain fixed during a portion of the swinging movement of the carriage and to be automatically moved thereby, to effect a movement of the indicator to and from the indicating position.

5 Signed at the borough of Manhattan, city of New York, in the county of New York,

and State of New York, this 3d day of March, A. D. 1905.

WALTER J. BARRON.

Witnesses:

E. M. WELLS,

M. F. HANSUREBER.